

INTERNATIONAL SEARCH REPORT

I	nternational Application No GB2004/003032
---	--

A. CLASSIFICATION OF SUBJECT MATTER		
IPC 7	C01B17/04	B01D53/86

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C01B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, PAJ, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 4 798 716 A (PALM ET AL) 17 January 1989 (1989-01-17) cited in the application * claims; figure; column 5, lines 13-17; column 8, line 39- column 9, 43 *	1, 4
X	EP 1 166 850 A (THE BOC GROUP PLC) 2 January 2002 (2002-01-02) claims; figure 3	1
A	EP 1 186 334 A (THE BOC GROUP PLC) 13 March 2002 (2002-03-13) paragraph '0045!; claims	1-12
A	EP 0 565 316 A (THE BOC GROUP PLC) 13 October 1993 (1993-10-13) cited in the application	

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

* Special categories of cited documents :

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the International filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
- *&* document member of the same patent family

Date of the actual completion of the international search

21 April 2005

Date of mailing of the international search report

27/04/2005

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl.
Fax: (+31-70) 340-3016

Authorized officer

Zalm, W

INTERNATIONAL SEARCH REPORT

Patent Application No

32004/003032

Patent document cited in search report		Publication date		Patent family member(s)		Publication date
US 4798716	A	17-01-1989	US	4849203 A		18-07-1989
EP 1166850	A	02-01-2002	EP	1166850 A1		02-01-2002
			US	2002021993 A1		21-02-2002
EP 1186334	A	13-03-2002	AU	777024 B2		30-09-2004
			AU	5801301 A		07-03-2002
			BR	0103441 A		02-04-2002
			CA	2354305 A1		28-02-2002
			CN	1340603 A		20-03-2002
			EP	1186334 A1		13-03-2002
			JP	2002145605 A		22-05-2002
			US	2002025292 A1		28-02-2002
			ZA	200106651 A		22-08-2002
EP 0565316	A	13-10-1993	AT	223252 T		15-09-2002
			AU	3546293 A		11-11-1993
			BR	9301445 A		13-10-1993
			CA	2093390 A1		07-10-1993
			CN	1086459 A		11-05-1994
			DE	69332260 D1		10-10-2002
			DE	69332260 T2		15-05-2003
			EP	0565316 A2		13-10-1993
			JP	3434313 B2		04-08-2003
			JP	6087605 A		29-03-1994
			NZ	247336 A		28-08-1995
			US	5468458 A		21-11-1995
			ZA	9302409 A		22-10-1993

BEST AVAILABLE COPY